## INTERNATIONAL SEARCH REPORT

Int — nat Application No
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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04R1/04 H03M3/04 H04R3/00 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 HO3M HO4R Documentation searched other than minimum documentation to the extent that such documents are included. In the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with Indication, where appropriate, of the relevant passages Relevant to claim No. X US 5 051 799 A (PAUL ET AL) 1-18 24 September 1991 (1991-09-24) column 1, line 6 - line 10 column 3, line 3 - line 13 column 4, line 41 - line 54 column 5, line 55 - line 65 X WO 03/023970 A (MICROSEMI CORPORATION) 1 - 1820 March 2003 (2003-03-20) figures 1-3 page 1, line 12 - line 14 page 2, line 1 - line 10 page 2, line 1 - line 10
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page 2, line 24 - page 3, line 2
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page 5, line 23 - line 27 page 6, line 7 - line 26Further documents are listed in the continuation of box C. X Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance \*E\* earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered n ovel or cannot be considered to involve an inventive step when the document is taken alone \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled "O' document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed in the art. "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 8 February 2005 15/02/2005 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Moscu, V

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